Chest Heated Finishers

15 inch (370 mm) Models and 20 inch (500 mm) Models

Refer to Page 2 for Model Identification

Installation/Operation

Keep These Instructions for Future Reference.
(If this machine changes ownership, this manual must accompany machine.)

Alliance Laundry Systems

www.comlaundry.com

Part No. 1800001R1
September 2007

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Introduction

Model Identification

Information in this manual is applicable to these models:

UL15F069	UL20F079
UL15F079	UL20F099
UL15F099	UL20F118
UL15F118	UL20F130
UL15R069	UL20R079
UL15R079	UL20R099
UL15R099	UL20R118
UL15R118	UL20R130
	UL20A118
	UL20A130

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Serial Plate Location

Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance. Refer to *Figure 1* for serial plate location.

1 Serial Plate

Figure 1

Replacement Parts

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

Customer Service

For technical assistance, call the following number:

(920) 748-3121
Ripon, Wisconsin

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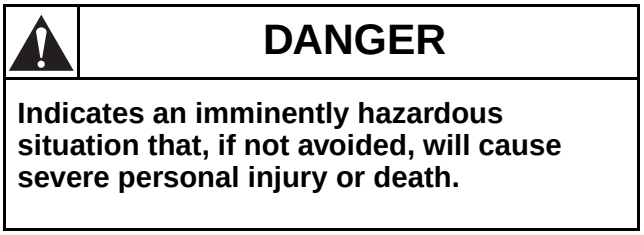
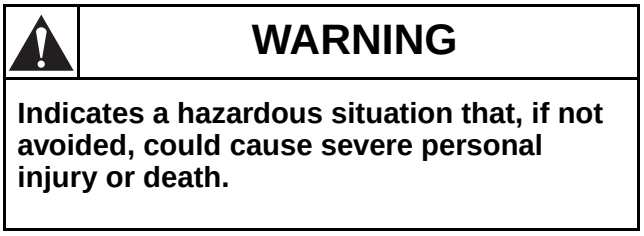
Safety

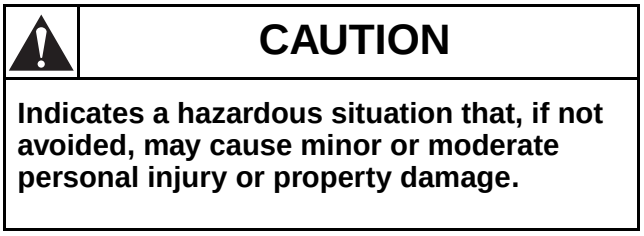
Explanation of Safety Messages

Safe operating and maintenance practices presented in this manual are emphasized with special safety messages. These messages are categorized as DANGER, WARNING and CAUTION. Explanations of these categories are listed below.

These safety messages are used throughout this manual to identify safe practices. Signal words are placed with descriptions or steps where the need to maintain safe conditions is critical.






CAUTION
Indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.

Safety signs and labels are also placed on the unit. Those signs and labels are limited messages. These signs are to be inspected for readability and replaced when missing, damaged, or unreadable. Refer to the ***Maintenance*** section of this manual for the periodic maintenance schedule. Refer to the parts manual for ordering information.

IMPORTANT: The word "IMPORTANT" is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE: The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

The WARNING and IMPORTANT instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which CANNOT be built into this finisher. These facts MUST BE supplied by the person(s) installing, maintaining or operating the finisher.

Always contact your dealer, distributor, service agent or the manufacturer on any problems or conditions you do not understand.

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Important Safety Instructions

(Save These Instructions)

WARNING

To reduce the risk of fire, electric shock, serious injury or death to persons when using your press, follow these basic precautions:

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1. Read all instructions before using the finisher.
2. Do not finish articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry cleaning solvents, or other flammable or explosive substances, as they give off vapors that could ignite or explode.
3. Do not allow children to play on or around the finisher. Close supervision of children is necessary when the finisher is used near children. This is a safety rule for all appliances.
4. Check the operation of the safety finger guard at the beginning of every shift. Operating the safety guard should stop the finisher immediately. If this safety feature is not working properly, employees must shut off the finisher and notify the supervisor. Do not operate the finisher until the safety finger guard is repaired and working properly. Be sure that all other safety features, including guards and panels, are in place before operating the finisher.
5. Never service the finisher while it is running. Never reach over, under, or behind the safety finger guard or into any area near hot surfaces or moving parts without first shutting off the finisher at the switch and power source. Follow this rule whenever working on the finisher to avoid serious injury from the finisher's heat and/or pressure.
6. Never try to remove, adjust, or straighten jammed or misfed linen while the finisher is running. Attempting to clear the jammed linen item can result in the user being caught in the linen and pulled into the finisher. If something is jammed in the finisher, turn off the power before attempting to correct the problem. Avoid contact with heated parts.
7. Protect yourself and fellow workers by making sure that everyone follows all the rules. Read and follow all safety labels and warnings. Learn all aspects of the equipment such as what is hot, which parts move, all safety shut-offs, and all emergency procedures. Do not come close to moving or heated parts. Do not wear loose clothing, sweaters, jewelry, or neck ties when near the finisher.
8. Frequent scheduled safety meetings are a must to review and update rules. If anyone is observed breaking the rules, the supervisor or manager should be notified immediately. Reporting people for rule breaking could save their lives or limbs.
9. Emergency shut-offs such as finger bars and emergency stop switches, should be painted red and clearly labeled.
10. Maintenance personnel should work in a buddy system for mutual protection when working on a finisher.
11. If in doubt, don't. Do not do anything until the supervisor or service-maintenance department has been contacted. Only qualified personnel should service the finisher.
12. Do not install or store the finisher where it will be exposed to water and/or weather.
13. Do not tamper with the controls.
14. Do not repair or replace any part of the finisher or attempt any servicing unless specifically recommended in this installation/operation manual.
15. To reduce the risk of fire, **DO NOT FINISH** plastics or articles containing foam rubber or similarly textured rubber-like materials.
16. Keep area around the exhaust opening and adjacent surrounding area free from the accumulation of lint, dust, and dirt.
17. The interior of the finisher and the exhaust duct should be cleaned periodically by qualified service personnel.
18. If not installed, operated, and maintained in accordance with the manufacturer's instructions, or if there is damage to or mishandling of this product's components, use of this product could expose you to substances in the fuel or from fuel combustion which can cause death or serious illness and which are known to the State of California to cause cancer, birth defects, or other reproductive harm.

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19. To reduce the risk of fire, **DO NOT FINISH** put articles which have traces of any flammable substances such as machine oil, vegetable oil or cooking oil, flammable chemicals, thinner, etc. or anything containing wax or chemicals such as in mops and cleaning cloths, or anything dry-cleaned at home with dry-cleaning solvent.
20. **ALWAYS** disconnect the electrical power to the finisher before servicing. Disconnect power by shutting off appropriate breaker or fuse.
21. Install this finisher according to the ***Installation*** instructions in this manual. All connections for electrical power, grounding, and gas supply must comply with local codes and be made by licensed personnel when required.
22. Do not turn hard or meltable materials into the machine.
23. Do not operate the machine without feed sheets.
24. Do not crawl or walk on the machine.
25. Always wear protective gloves when working at the machine. The beds are hot and hot linen exits the machine.

WARNING

To prevent serious injury or death, read finisher manuals before installing, operating, maintaining, or cleaning the finisher.

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WARNING

To AVOID possible serious injury, BEFORE maintenance or repair tasks:

- **Disconnect all utilities such as gas, electricity and steam.**
- **Allow heated parts and surfaces to cool.**

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Installation

Dimensions and Specifications

UL15 Models

	UL15*069	UL15*079	UL15*099	UL15*118
Roll Motor *Optional High Speed	.24 hp (.37 kW) *.5 hp *(.37 kW)	.24 hp (.37 kW) *.5 hp *(.37 kW)	.5 hp (.37 kW) *2.01 hp *(1.5 kW)	.5 hp (.37 kW) *2.01 hp *(1.5 kW)
Exhaust Motor	.34 hp (.25kW)	.34 hp (.25 kW)	.34 hp (.25 kW)	.34 hp (.25 kW)
Hydraulic Pump Motor	.5 hp (.37 kW)	.5 hp (.37 kW)	.5 hp (.37 kW)	.5 hp (.37 kW)
Circulation Pump Motor	2.95 hp (2.2 kW)	2.95 hp (2.2 kW)	2.95 hp (2.2 kW)	2.95 hp (2.2 kW)
Approx. Shipping Weight	1874 lb. (850 kg)	2050 lb. (930 kg)	2491 lb. (1130 kg)	2976 lb. (1350 kg)
Approx. Net Weight	1543 lb. (700 kg)	1720 lb. (780 kg)	2161 lb. (980 kg)	2646 lb. (1200 kg)

UL20 Models

	UL20*079	UL20*099	UL20*118	UL20*130
Roll Motor *Optional High Speed	.5 hp (.37 kW) *2.01 hp *(1.5 kW)	.5 hp (.37 kW) *2.01 hp *(1.5 kW)	.5 hp (.37 kW) *2.01 hp *(1.5 kW)	.5 hp (.37 kW) *2.01 hp *(1.5 kW)
Exhaust Motor	.34 hp (.25kW)	.34 hp (.25 kW)	.34 hp (.25 kW)	.34 hp (.25 kW)
Hydraulic Pump Motor	.5 hp (.37 kW)	.5 hp (.37 kW)	.5 hp (.37 kW)	.5 hp (.37 kW)
Circulation Pump Motor	2.95 hp (2.2 kW)	2.95 hp (2.2 kW)	2.95 hp (2.2 kW)	2.95 hp (2.2 kW)
Approx. Shipping Weight	3197 lb. (1450 kg)	3527 lb. (1600 kg)	3803 lb. (1725 kg)	4078 lb. (1850 kg)
Approx. Net Weight	2645 lb. (1200 kg)	2976 lb. (1350 kg)	3252 lb. (1475 kg)	3527 lb (1600 kg)

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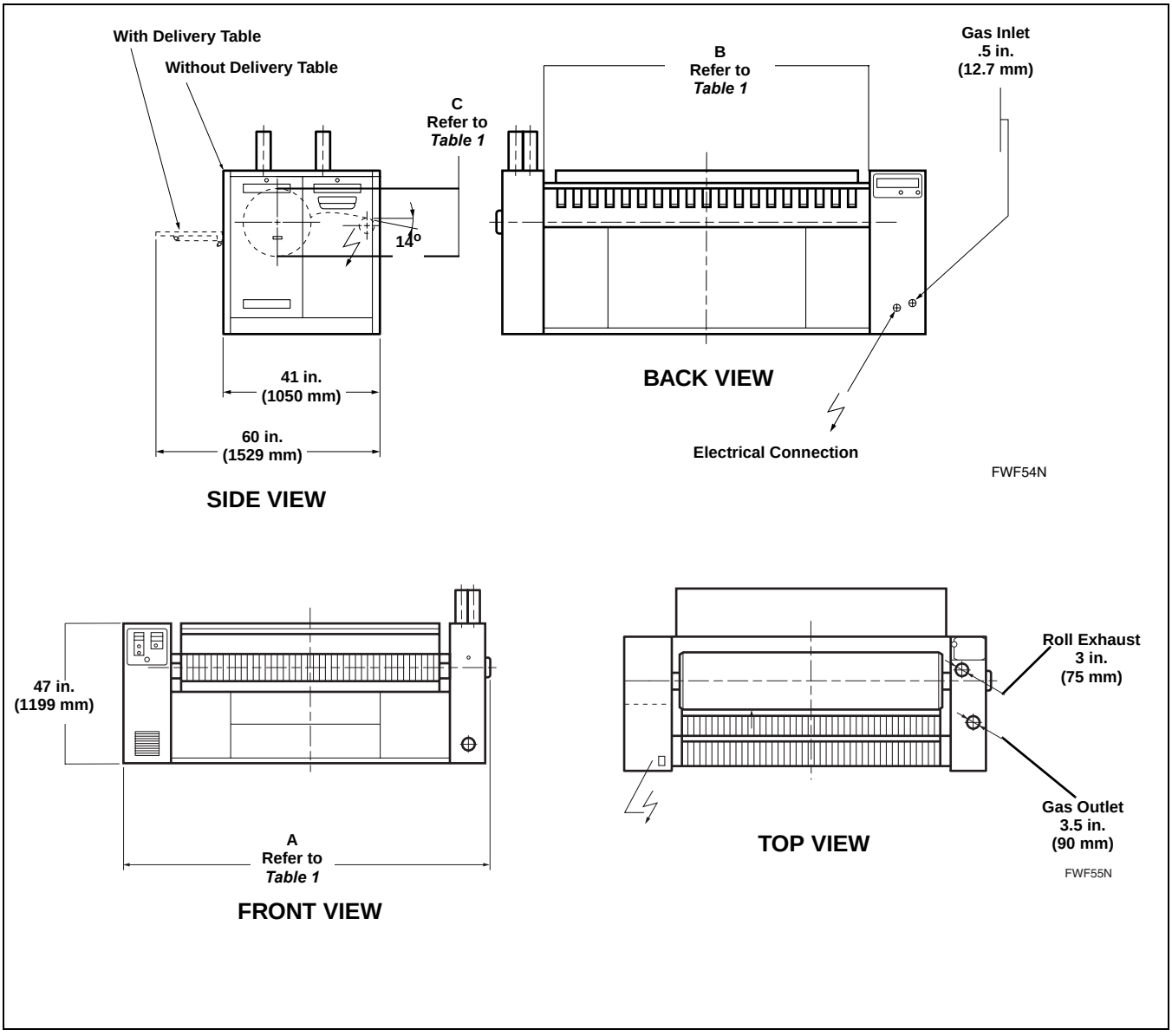
Dimensions

UL15 Models



Dimension				
	UL15*069	**UL15*079**	**UL15*099**	**UL15*118**
A	97 in. (2463.8 mm)	107 in. (2717.8 mm)	127 in. (3225.8 mm)	147 in. (3733.8 mm)
B	69 in. (1750 mm)	79 in. (2000 mm)	99 in. (2500 mm)	118 in. (3000 mm)
C	15 in. (370 mm)	15 in. (370 mm)	15 in. (370 mm)	15 in. (370 mm)

Table 1

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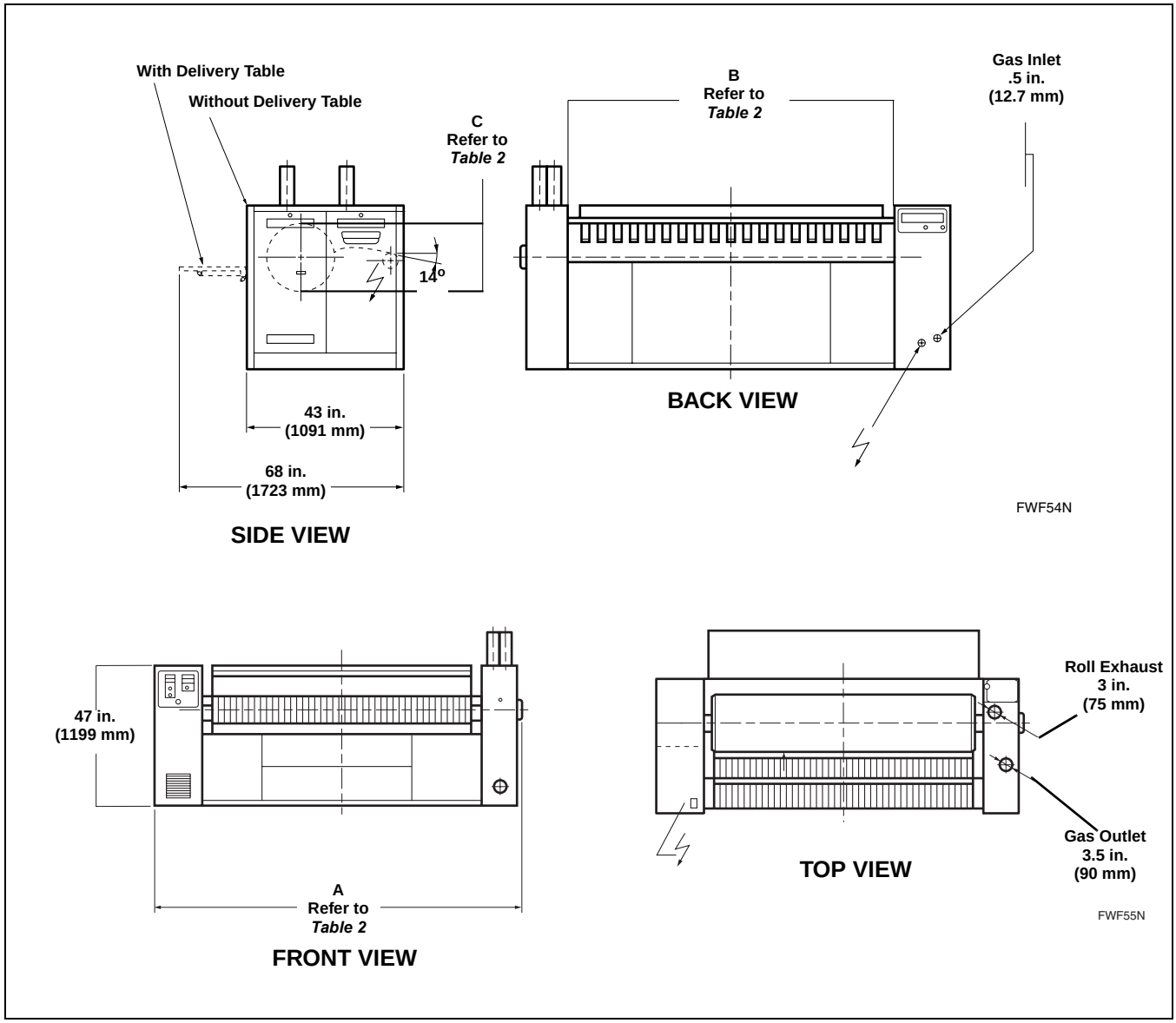
Dimensions

UL20 Models



Dimension				
	UL20*079	**UL20*099**	**UL20*118**	**UL15*130**
A	112 in. (2850 mm)	132 in. (3350 mm)	152 in. (3850 mm)	163 in. (4150 mm)
B	79 in. (2000 mm)	99 in. (2500 mm)	118 in. (3000 mm)	130 in. (3300 mm)
C	20 in. (500 mm)	20 in. (500 mm)	20 in. (500 mm)	20 in. (500 mm)

Table 2

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Pre-Installation Inspection

Upon delivery, visually inspect the packaging and portions of the finisher that are visible through the packaging for shipping damage.

If the package or finisher is damaged or if signs of possible damage are evident, have the carrier note the condition on the shipping papers before the shipping receipt is signed, or advise the carrier of the condition as soon as it is discovered.

IMPORTANT: Lift the box cover off the finisher and check the items listed on the packing list.

Advise the carrier of any damaged or missing articles as soon as possible. A written claim should be filed with the carrier immediately if articles are damaged or missing.

IMPORTANT: Warranty is void unless the finisher is installed according to instructions in this manual. Installation should comply with minimum specifications and requirements detailed in this manual and applicable local gas fitting regulations, municipal building codes, water supply regulations, electrical wiring regulations, and any other relevant statutory regulations. Due to varied requirements, applicable local codes should be thoroughly understood and all pre-installation arranged accordingly.

WARNING

To prevent fire, explosion, or personal injury, this finisher may only be installed, adjusted, and started up by qualified technicians.

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Location Requirements

It is strongly recommended that the purchaser be present during installation and the first tests.

To assure compliance, consult and adhere to building/ local code requirements and comply with the following:

- The finisher must be installed in a very well ventilated room (especially when using gas heating) with correct lighting and an ambient temperature in the range from 32°F (0°C) to 104°F (40°C).
- Leveling should be carried out correctly on a hard and stable floor surface, capable of supporting the weight of the finisher. Contact your mechanical engineer for foundation requirements.
- The finisher MUST NOT be installed or stored in an area where it will be exposed to water and/or weather.

IMPORTANT: DO NOT block the airflow at the rear of the finisher with laundry or other articles. Doing so would cause inadequate air supply to the combustion chamber of the finisher.

Leave sufficient space around the finisher to allow for correct functioning.

FOR FRONT RETURN MODELS ONLY:

- Allow at least 4 inches (102 mm) in the back to allow for ventilation.
- Allow 32 inches (813 mm) on each side for upkeep and maintenance.
- Allow sufficient space in front so operator can work efficiently and safely.

FOR REAR RETURN MODELS

- Allow sufficient space in front and rear so operator can work efficiently and safely.

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Moving Finisher with Crane

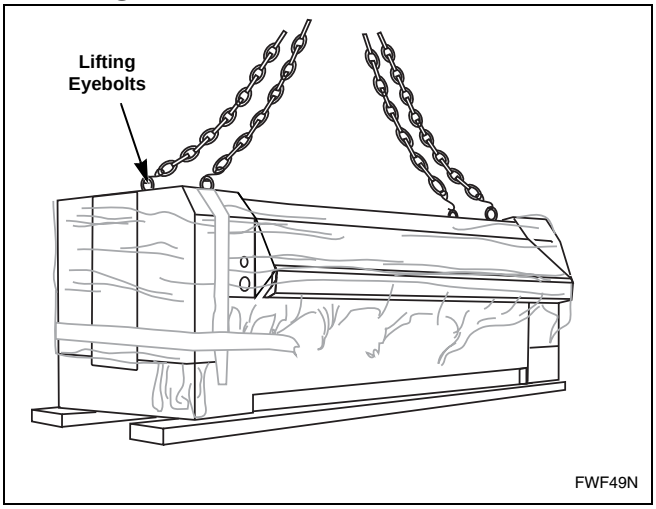

Figure 2

1. Remove any obstacles under machine placement area.
2. Fasten lifting cables to lifting eyebolts. Refer to *Figure 2*.
3. Lift machine.
4. Make sure cable is positioned correctly so that machine hangs horizontally.
5. Lift machine carefully, without sudden shocks or movements.
6. Place machine on ground, as close to the permanent location as possible.
7. If the machine needs further moving, use forklift or rollers. Refer to *Moving Finisher with Forklift* section.

IMPORTANT: To use rollers place rollers in four corners, distributing weight evenly.

8. Once finisher is in final position, open hydraulic valve to release chest.
9. Remove all packing materials.
10. Level finisher.

Moving Finisher with Forklift

The finisher should be moved with a forklift as close as possible to the area where it will be installed. Use a forklift of sufficient capacity to lift the packaged unit according to the following procedures.

IMPORTANT: DO NOT lift finisher with slings.

1. Position the forklift arms beneath the center of the unit in the built-in forklift slots. Refer to *Figure 3*.

IMPORTANT: Lifting the finisher from either side could cause misalignment and/or damage to the finisher.

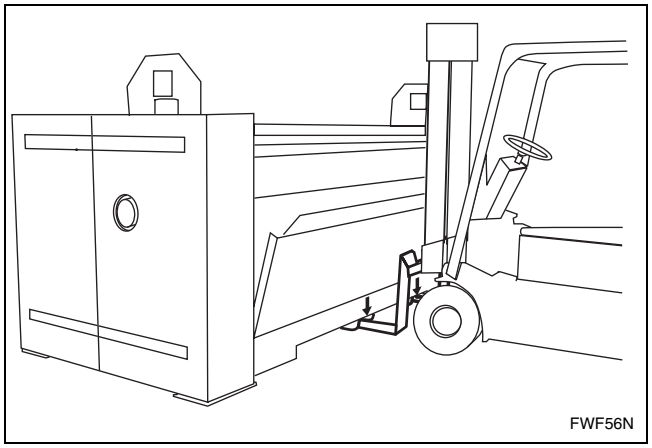

Figure 3

2. Use the forklift to carefully lift the packaged finisher off wooden skids. Refer to *Figure 2.*
3. Move the packaged unit as close as possible to the area where the finisher will be installed.

IMPORTANT: DO NOT lift the unit more than 8 inches (203 mm) off the ground.

4. If the machine needs further moving, place rollers in all four corners off finisher, distributing weight evenly, and roll into place.
5. Once finisher is in final position, open hydraulic valve to release chest.
6. Remove all packing materials.
7. Level finisher.

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Electrical Connection

Electrical connections should be made by a qualified electrical contractor in accordance with all applicable local and national requirements. A differential circuit breaker (obtain locally), correctly sized for the power consumption of the finisher, must be installed near finisher. Refer to *Table 3* and *Table 4*.

IMPORTANT: Electrical specifications in *Table 3* and *Table 4* are subject to change without notice. Always refer to product serial plate for most current specifications of product being installed.

NOTE: Use copper conductors only.

NOTE: Connect to individual branch circuit.

Electrical Models (CE Approved)			
Serial Plate Rating	**Model**	**Recommended Circuit Breaker**	**Heater Element**
All Voltages	UL15*069	50 Amp	40 hp (30 kW)
	UL15*079	50 Amp	40 hp (30 kW)
	UL15*099	57 Amp	47 hp (35 kW)
	UL15*118	63 Amp	54 hp (40 kW)
	UL20*079	50 Amp	40 hp (30 kW)
	UL20*099	63 Amp	54 hp (40 kW)
	UL20*118	70 Amp	60 hp (45 kW)
	UL20*130	70 Amp	60 hp (45 kW)

Table 3

All Gas Models (CSA and CE Approved)		
Serial Plate Rating	**Recommended Circuit Breaker**	**Full Load Amps**
230/50/3 208-240/60/3	30 Amp	28 Amp
400/50/3	20 Amp	16 Amp
440-480/60/3	15 Amp	14 Amp

Table 4

Before preceding, check for proper rotation of exhaust fan, hydraulic pump, and circulation pump. All three should be moving in the direction indicated by the arrow on part. If all three are rotating properly proceed. If they are not, reverse polarity of component not rotating properly.

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Gas Connection

IMPORTANT: The installation must comply with local codes, the current National Fuel Gas Code, ANSI Z223.1 in the U.S.A., or the current CAN/CSA B149, Installation Codes in Canada.

Install a shut-off valve to isolate gas connections from rest of installation. Gas models must be connected to the existing gas pipes. The gas supply pipe size must have sufficient dimensions to minimize pressure loss. Obtain specific gas supply pipe size from the gas supplier. Refer to *Table 5* for general pipe size.

When connecting to a gas line, an equipment shut-off valve must be installed within 6 feet (1.8 m) of the finisher. A 1/8 inch N.P.T. pipe plug must be installed as shown. Refer to *Figure 4*.

Gas Pipe Size Required for 1,000 BTU Natural Gas 0.64 Specific Gravity at 6.5 ± 1.5 inch (1.62 ± .37 kPa) Water Column Pressure						
	EQUIVALENT LENGTH					
Gas Appliances Total Btu/hr.	25 feet (7.63 m)	50 feet (15.25 m)	75 feet (22.88 m)	100 feet (30.50 m)	125 feet (38.13 m)	150 feet (45.75 m)
	Based on 0.3" Water Column Pressure Drop for Length Given					
100,000	.75 in. (19.05 mm)	.75 in. (19.05 mm)	1 in. (25.4 mm)	1 in. (25.4 mm)	1 in. (25.4 mm)	1 in. (25.4 mm)
200,000	1 in. (25.4 mm)	1 in. (25.4 mm)	1.25 in. (31.8 mm)	1.25 in. (31.8 mm)	1.25 in. (31.8 mm)	1.25 in. (31.8 mm)
300,000	1 in. (25.4 mm)	1.25 in. (31.8 mm)	1.25 in. (31.8 mm)	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)
400,000	1 in. (25.4 mm)	1 in. (25.4 mm)	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)	2 in. (50.8 mm)
500,000	1 in. (25.4 mm)	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)
600,000	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)
700,000	1.5 in. (38.1 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2.5 in. (63.5 mm)
800,000	1.5 in. (38.1 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2.5 in. (63.5 mm)	2.5 in. (63.5 mm)
900,000	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2.5 in. (63.5 mm)	2.5 in. (63.5 mm)	2.5 in. (63.5 mm)
1,000,000	2 in. (50.8 mm)	2 in. (50.8 mm)	2 in. (50.8 mm)	2.5 in. (63.5 mm)	2.5 in. (63.5 mm)	2.5 in. (63.5 mm)
IMPORTANT: For L.P. (Liquefied Petroleum) gas, correct the total BTU/hour by multiplying it by 0.6. The answer is the equivalent BTU on the above chart.						

Table 5

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Inlet Pressure

Use a manometer to verify that the inlet pressure meets the following requirements:

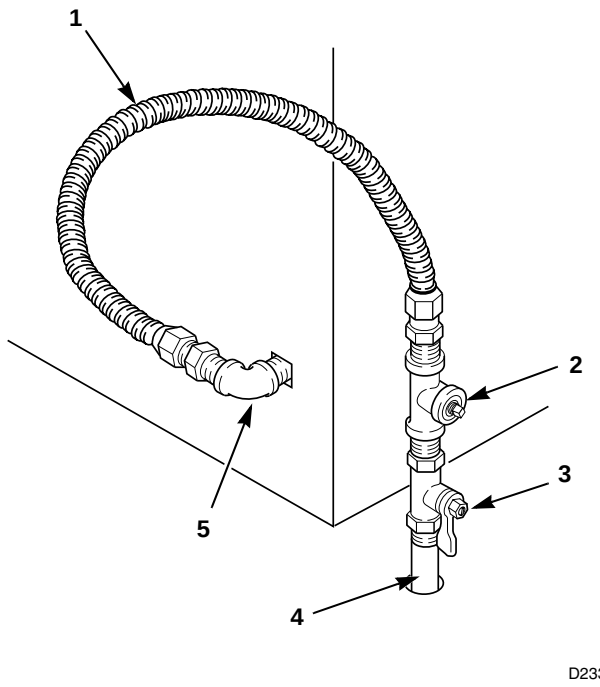
Natural Gas service must be supplied at 7.0 ± 1.5 inch water column pressure (1.74 ± 0.37 kPa).

L.P. (Liquefied Petroleum) Gas service must be supplied at 11 ± 0.3 inch water column pressure (2.74 ± 0.07 kPa).

Manifold Pressure

To check manifold pressure, use a manometer to verify that the settings of the gas valve correspond with the type of gas being used.

1. Connect the manometer to the pressure connection located on top of the gas valve while the burner is ignited.
2. Read the manometer to determine the pressure of the gas. The measured gas pressure must be equal to the pressure indicated on the finisher's serial plate.
3. Install a pressure regulator valve (obtain locally), suited for the nature and flow rate of the gas used, in the tube system near the finisher.



1	New stainless Steel Flexible Connector - Use only if allowed by local codes (Use Design A.G.A. Certified Connector)
2	Pipe Plug (For checking inlet gas pressure)
3	Equipment Shut-Off Valve - Installed within 6 ft. (1.8 m) of finisher
4	Black Iron Pipe
5	Gas Connection

Figure 4

IMPORTANT: Before proceeding, check gas connection for leaks.

Gas Requirements								
	UL15*069	**UL15*079**	**UL15*099**	**UL15*118**	**UL20*079**	**UL20*099**	**UL20*118**	**UL20*130**
Maximum Gas Input	178,110 Btu (52 kW)	178,110 Btu (52 kW)	178,110 Btu (52 kW)	178,110 Btu (52 kW)	178,110 Btu (52 kW)	178,110 Btu (52 kW)	178,110 Btu (52 kW)	178,110 Btu (52 kW)
Burner Exhaust	40 cfm	40 cfm	40 cfm	61 cfm	40 cfm	61 cfm	64 cfm	67 cfm
Burner Exhaust Inches of Water Column	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

Table 6

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Exhaust Requirements

WARNING

Finisher produces combustible lint. To reduce the risk of fire, the finisher must be exhausted to the outdoors.

To reduce the risk of fire and accumulation of combustible gases, DO NOT exhaust finisher air into a window well, gas vent, chimney or enclosed, unventilated area such as an attic wall, ceiling, crawl space under a building, or concealed space of a building.

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Whenever possible, install the finisher along an outside wall where duct length can be kept to a minimum and make-up air can be easily accessed. Construction must not block the airflow at the rear of the finisher. Doing so would cause inadequate air supply to the finisher combustion chamber.

IMPORTANT: Provisions must be made for make-up air.

IMPORTANT: Do not obstruct flow of combustion and ventilation air.

WARNING

Do not connect vents together. Gas and ventilation outlets must be separate to prevent fire.

Insulate all ducts to prevent fire.

W680

Using the shortest possible path, connect the exhaust outlet to an outlet duct. For gas models, use two separate outlets.

IMPORTANT: Outlet ducts used for the finisher's exhaust may under no circumstances be shared with other devices.

Exhaust Requirements	
Vapor Exhaust	206 cfm
Vapor Exhaust (Inches of Water Column)	2.4 in.
Exhaust Roll Duct*	3 in. (75 mm) *For ducts longer than 15 ft. (4.57 m) continue with 3.5 in. (90 mm)

Table 7

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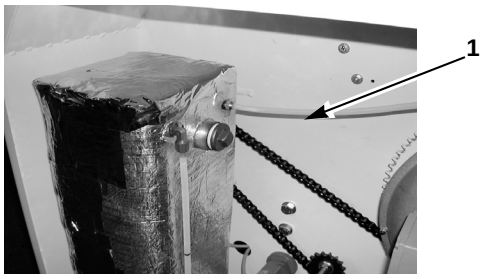
Commissioning Procedures

1. Bake open gas valve and check machine for leaks.
2. Purge moisture out of machine. Refer to ***Purging Moisture***.

Purging Moisture

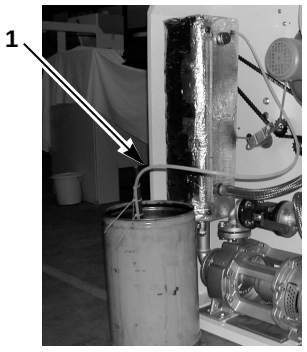
At the first heating of the machine, air a moisture must be purged out of the system. To do this:

1. Take off existing hose. Do not throw away. Refer to *Figure 5*.
2. Connect the teflon hose provided on top of the machine in its place.
3. Heat the machine fully.
4. Place one end of the teflon hose into a tub. Refer to *Figure 6*.
5. Let teflon hose drain into tub.
6. Remove the teflon hose.
7. Replace original hose.



1 Existing Hose

Figure 5



1 Drain into tub

Figure 6

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Operation Instructions

Pre-Operation

Daily Check Points

1. Check to ensure all safety guards are in position and closed.
2. Before starting, check that area is free of obstructions that could cause safety issues.
3. Check that there are no foreign objects between the roll and the bed.
4. Check to ensure the opening between the feed band and finger guard is not more than .6 inch (15 mm) and that it is working properly.
5. Check the condition of the padding.
6. If the wire the padding is stitched with becomes visible, replace the padding.
7. Check the condition of the feed bands.
8. Check for proper function of the emergency stop buttons.
9. Clean dust off machine.
10. Check the machine for leaks.

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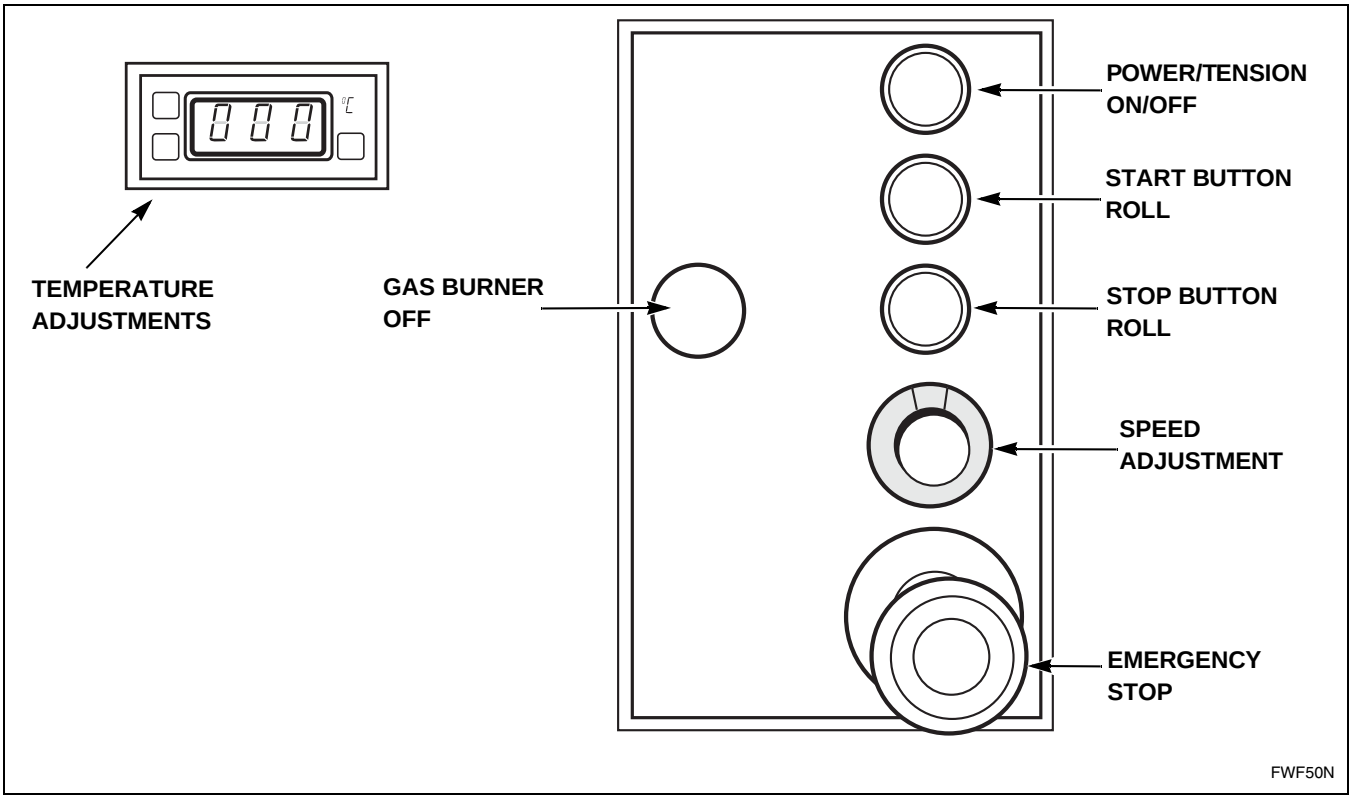
Operating Instructions



The machine is suitable for ironing linen such as sheets, pillow cases and table linens.

Start

1. Push green "Tension" button: the circulation pump starts to work, the burner starts.
2. Set to desired temperature.

IMPORTANT: The working temperature varies depending on the fabric being ironed. It must be at least 302°F (150°C) but never to exceed 365°F (180°C).

3. Push the green "Start" button to start machine. Green pilot comes on. Bed is pressed against roller, exhaust is started, and roll starts to turn. For best results, adjust speed.

Stop

1. Push red stop button, bed opens and roll stops at once. The machine remains on temperature.

IMPORTANT: When pushing emergency stop button, all motors and the burner are cut off and bed opens automatically. Restarting is only possible by resetting the emergency stop button (turn clockwise) and pushing the power/tension button again. Touching the finger guard will stop the roll at once, but temperature will remain constant. To start again, push start button.

IMPORTANT: When the finger guard is tripped the bed remains pressed against the roll. It is strongly recommended to start the roll as soon as possible or to stop the machine completely.

Temperature Setting

NOTE: Set temperature to read in degrees Fahrenheit.

SET: Push to display the set point valve. The set point can be changed within 3 seconds with the "UP" or "DOWN" button. The control will automatically switch back to normal operating mode within 3 seconds; the last entered set point sill stay in memory.

UP: Used to increase the set point value, as well as the parameter when in programming. Pushing the button for several seconds will accelerate the change rate.

DOWN: Used to decrease the set point valve, as well as the parameter when in programming. Pushing the button for several seconds will accelerate the change rate.

LED "OUT": Status light of the output. Blinks when in set point display/change mode or during programming.

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Maintenance

General Maintenance

Daily:
• 2 to 4 times a day pass a wax cloth through ironer. • Check condition of padding. • Dust the machine.
Every Three Months:
• Clean ventilation caps of drive reduction motor and suction fan. • Grease bearings with 1-2 pumps of high temperature grease.
Every Six Months:
Check chain tension of feed bands.
Yearly:
Change reduction drive roll oil.
Every 2 Years:
Drain ironing bed oil.
Every 5 Years:
Drain and replace hydraulic pump oil.
Other:
If scale occurs at entrance of beds, clean beds.

IMPORTANT: The maintenance should be done according to the maintenance plan. The manufacture is not responsible for accidents or defects due to bad maintenace or use of spare parts not delivered from factory.

The possible risks of bad maintenance are:

- Quick wear of bearings and gears by insufficient greasing.
- Heating of the bearings with insufficient greasing can lead to fire.
- If safety devices are not checked daily, it can lead to severe accidents.
- Worn or missing feed bands can cause a danger for trapped fingers.
- Quick wear of bearings and gears by insufficient greasing.
- Waiting too long to renew the padding can damage the beds.

Oil Change Maintenance			
	Reduction Drive Roll	**Ironing Bed**	**Hydraulic Pump**
Oil Type	GOYA 220	TEXATHERM HT22	SHELL TELLUS S 68
Maintenance	First drain after 6 months then every year	Every 2 years	Drain every 5 years
Oil Volume	1.2 liter (0.3 gallons)	Gas Models 30 liter (8 gallons) Electric Models 90 liters (24 gallons)	2.5 liter (0.7 gallons)

Table 8

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Cleaning the Beds

The life of all ironer clothing depends largely on the condition of the beds. A clean smooth bed increases the life of padding and improves the quality of the ironed linen. A typical ironing problem like creasing on the leading edge is almost always due to a dirty bed. Through not always visible, residuals and salts will build up on the bed surfaces.

Before cleaning beds, deposit causes should be identified. These are usually found in the washing process:

- Hard water (lime deposit)
- PH value higher or lower than the ideal 6.5.
- High rest moisture (to much water to evaporate).
- Bad rinsing (soap residuals).

Cleaning Beds

NOTE: Cleaning the beds with hard materials may cause damage to the beds.

When there is only build-up at the bed inlet, it can be removed by hand and with Scotch-Brite™. However, when there is build-up on the whole bed:

1. Drop the beds.
2. Let the machine cool down.
3. Wrap a cloth around each roller to protect the padding against dust.
4. Wind strips of Scotch-Brite™ around the rollers in wide lanes.
5. Lower hydraulic pressure to 217.5 psi - 290 psi (15 bar to 20 bar).
6. Push the slightly heated beds against the rollers and turn the rollers for 2 to 3 hours.
7. Keep watching to make sure the Scotch-Brite™, does not loosen.
8. Remove all dust, Scotch-Brite™, and cloth.
9. Restore to original hydraulic pressure.
10. Heat the beds and pass a wax cloth to grease the beds.

NOTE: Wax should be applied regularly but sparingly so as not to clog up the clothing suction. Always use a cloth and never apply wax between roll and bed. That may cause spots in the ironed items because padding absorbs wax.

WARNING

On oil heated ironers, too much wax constitutes a fire hazard.

W681

Padding Specification

Material specifications:

Felt thickness: .66 to .70 inch (17 to 18 mm)

Felt weight: .8 lbs/ft.^{2} (tolerance of 5% is acceptable).

Air permeability: 18 m^3 per m^2 per minute

Material type:

For steam pressures under 174 psi (12 bar): 100% polyester - single layer felt

Reclothing Roll

Required materials:

- Set of new clothings
- Stitching wire (.31 inch [0.8 mm]) low heat, softened, pliable, stainless steel wire
  Length: twice roller length
- Strong sharp knife
- Sturdy pliers
- New springs, when needed

To remove old clothing:

1. Lower the beds from the rollers.
2. Remove and retain all brass screws holding the clothing at each end of the roller.
3. Cut away the wire at the seam and retain as a model for stitching new clothing. Clean the rollers.

To check bare rollers:

1. If the surface is uneven, level it off by pulling up or knocking down any distorted springs.
2. Replace any springs that are damaged. Check that the hooks of the springs are all in the same direction.

To install new clothing:

1. Place clothing on last roller.
2. Affix the felt with one screw at each end of the roller. Do not trim off the sides yet.

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3. Tie the leading edge of the felt to the springs every 12 inches (300 mm) using wire. These must remain until clothing is stitched, then they should be cut and removed.
4. Repeat the procedure to each subsequent roller as described in steps 1, 2 and 3.
5. Wrap a cloth around the leading edge of the new felt to protect it.
6. Turn the roller one third of a revolution until the leading edge of the felt is in the bed.
7. With the pressure set at 284.47 lb./in.^{2} (20kg/cm^2) raise the beds of the felt to meet at the top of the roller.
8. Firmly tension the felt over the whole length of the trailing edge with a strong pair of pliers.
9. With a strong sharp knife, cut away any excess felt across the whole width of the roller, cut short so that a 3/4 inch gap remains between first and last edge.
10. Stitch the clothing.

To stitch new clothing:

1. Making a small noose at the end of the wire.
2. Insert the needle into the clothing and pass it through the noose to secure an end.
3. Draw wire into felt by making a shallow cut .07 to .11 inch (2 to 3 mm deep) into felt and allow wire to sink into the cut. The wire should not pop out anywhere.
4. By hand, stitch 20 inches (508 mm) leaving approximately 1-1/4 inch (30 mm) between stitches. Then draw up the wire firmly into the clothing, at the same time hammering wire into felt.
5. Finish at the ends by making a cross stitch. Continue stitching over the remainder of the clothing in the same method.
6. Lower the beds.

NOTE: Never turn the rollers in cold beds!

7. Trim off the felt around circumference of rollers at each end. (Cut off overlapping felt at each side of the roller).
8. Make holes in the felt and screw the felt down around the rollers at both ends using screws retained from the old clothing.
9. Tension the clothing.

Baking of Roll Padding

IMPORTANT: DO NOT turn rolls in cold beds. DO NOT turn rolls in the beds before the baking.

1. Open the beds and visually divide the roll in four parts.
2. Remove wax paper from rolls.
3. Ungrease and clean beds.
4. Heat beds to working temperature.
5. Adjust the hydraulic pressure regulation valve to proper setting. Refer to ***Hydraulic Pressure Settings*** chart.
6. Press beds against 1/2 of roll for about 15 minutes, at appropriate hydraulic pressure. Refer to ***Hydraulic Pressure Settings*** chart.
7. Open beds and turn roll 1/2 revolution (180^o). Press beds against roll again for 15 minutes.

NOTE: To turn roll with open beds, a special switch in electrical box is used.

8. Open beds and turn roll 1/4 revolution (90^o). Press beds against roll again for 15 minutes.
9. Repeat step 7 an additional seven times (baking takes 2.5 hours total).
10. Open beds and set pressure regulation valve to proper setting. Refer to ***Hydraulic Pressure Settings*** chart.
11. Wrap a sheet around roll. Press beds against roll and turn for about 15 minutes.

NOTE: During turning, put some wax at bed entrance between roll and bed. Open beds and remove sheet.

12. Adjust scrapers. Refer to ***Adjusting the Scrapers*** section.

NOTE: While ironing, if the padding becomes loose, stop roll, open beds, and turn loose part down. Press beds against roll for 15 minutes. DO NOT TURN ROLL.

NOTE: This procedure should be repeated when replacing roll padding on any machine.

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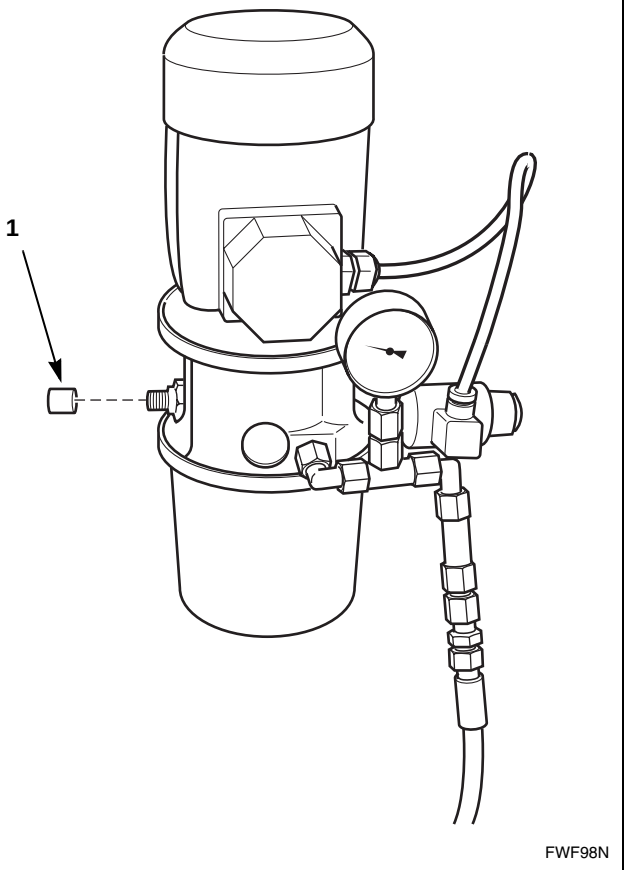
Hydraulic Pressure Settings

To adjust hydraulic pressure:

1. Remove cap from side of hydraulic pump. Refer to *Figure 7*.



1 Cap

Figure 7

2. Using a 4 mm Allen Wrench, adjust screw as follows: turn clockwise (up) to increase hydraulic pressure, turn counter clockwise (down) to decrease hydraulic pressure.
3. Reinstall cap.

Baking		Starting		After 10 Days	
PSI	**Bar**	**PSI**	**Bar**	**PSI**	**Bar**
508	35	290	20	363	25

Table 9

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Scrapers

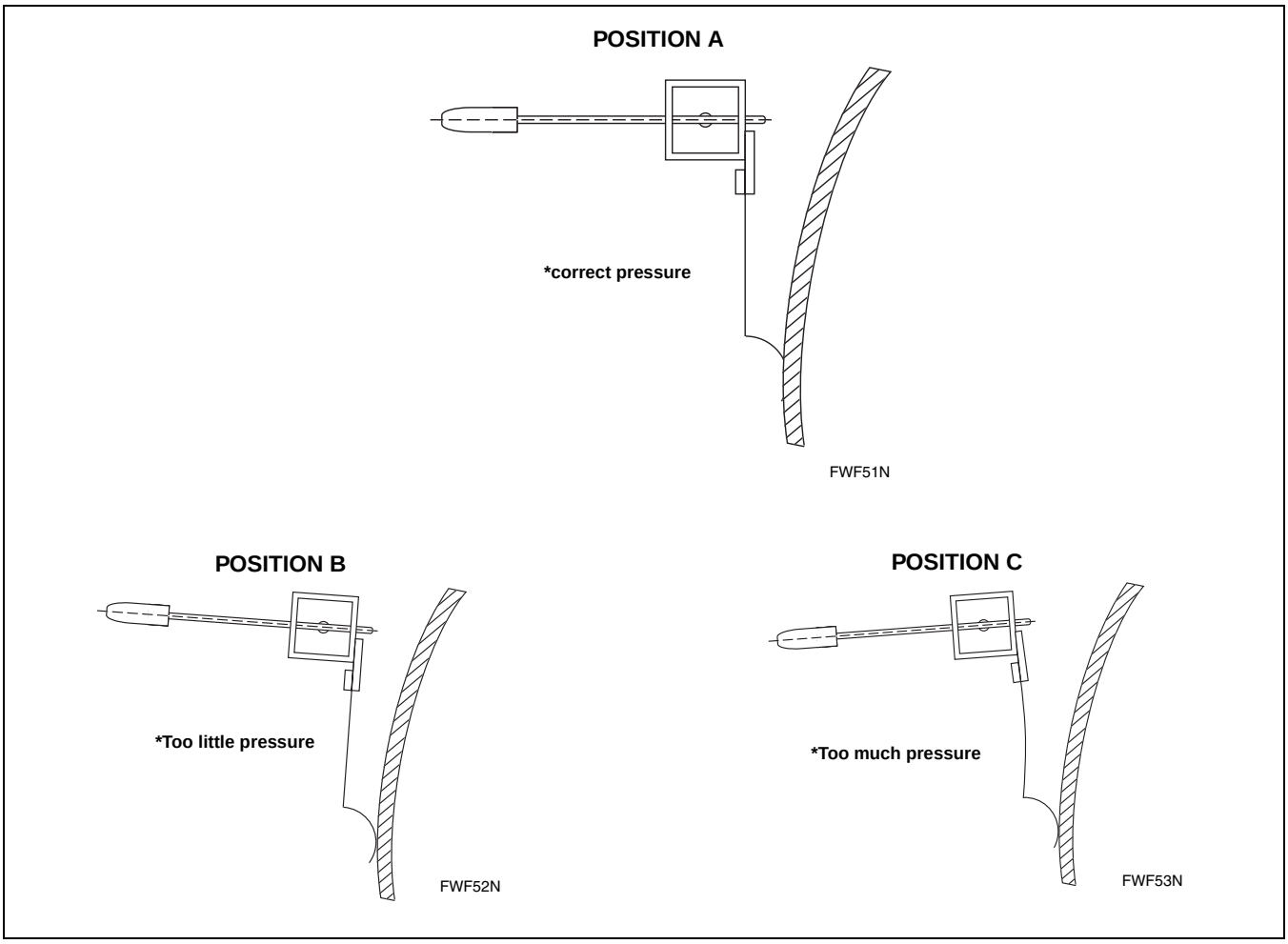

Figure 8

Extended Periods of Non-Use

1. Let the padding dry out.
2. Wrap plastic around roller(s).
3. Grease the beds with some oil to prevent rusting by feeding an oil cloth.
4. Keep carrying out the annual maintenance (oil change, greasing, etc.).
5. Before starting the ironer again, clean the beds.

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Troubleshooting

Troubleshooting Guide

Problem	Cause	Solution
1. The machine does not reach its temperature. (Gas heated).	1. Fuses tripped. 2. Thermal safety fallen out. 3. No gas. 4. Button DKL3. 5. Gas ignition tripped out.	1. Replace fuse. 2. Push thermal fuse. 3. Check gas input. 4. Replace DKL3. 5. Push safety gas ignition.
2. Machine starts to heat, but gas ignition goes in safety.	1. No gas. 2. Bad suction of the gases. 3. Ionization bar out of order. 4. Pressure bar out of order. 5. Gas valve out of order.	1. Check gas input. 2. Check gas inlet. 3. Ionization bar. 4. Check or change pressure gas valve. 5. Change the gas valve.
3. Machine is on temperature but the bed does not close.	1. Push button DKL1 out of order. 2. Motor out of order.	1. Change push button DKL1. 2. Check motor print C2.
4. The bed closes but the roll does not turn.	1. Foot pedal (option) pushed. 2. Finger guard pushed. 3. Frequency control out of order.	1. Check or replace contact F.D.C4 (option). 2. Check or replace contact F.D.C2. 3. Change frequency control.
5. Roll suction does not work.	1. Motor out of order. 2. Contactor out of order.	1. Replace motor. 2. Replace contactor C3.
6. No power.	1. Safety out of order. 2. Main switch out of order. 3. Fuses out of order.	1. Push motor safeties. 2. Replace main switch. 3. Replace fuses.
7. Creases in the linen.	1. Temperature of the bed is too low. (under 150^{o}C or 302^{o}F) 2. Bed is dirty.	1. Adjust higher working temperature. (normally 170^{o} C or 338^{o} F) 2. Clean and wax bed.
8. Bad combustion of the gases.	1. Gas pressure is too high. 2. Gas valve is badly adjusted.	1. Adjust gas pressure on 13 mbar (0.2 psi). 2. Adjust gas valve. Contact technical service for instruction.

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Troubleshooting Undesirable Finishes

Problem:	Possible Causes/Corrective Action:
Wrinkles in the fabric are not removed.	There is not enough moisture in the fabric. Dry fabric cannot be ironed.
The fabric is not completely dry.	1. The roll temperature is too low. Try a higher temperature, but do not exceed the maximum temperature tolerance of the most sensitive fiber. 2. The feed speed is too fast. Adjust the speed so the fabric is dry after one pass. 3. The fabric moisture content is too high. a. Provide a longer washer extraction time. b. Provide a higher washer g-force extraction speed. c. Partially dry (in a tumbler) the linen before finishing.
There are lengthwise wrinkles in the fabric.	The operators must stretch the fabric side to side during the feed process.
There are crosswise wrinkles in the fabric.	1. There is insufficient wax on the shoe. 2. The return ribbon travel is uneven. a. The return drive roll could be slipping on the ribbons. This could be caused by the presence of fabric softener on the roll. Fabric softener should not be used on fabrics that will be ironed. b. The ribbon length is uneven. Uneven length ribbons will not drive the roll evenly.
Only a few articles can be ironed before the finish quality deteriorates. The operators must wait a few minutes before proceeding in order to process linen to the proper finish.	1. There is too much water in the fabric. Large articles with excessive water content will remove a great amount of heat from the roll or shoe. This will reduce the roll or shoe temperature below that required to obtain an acceptable dry and finish. In order to compensate the operators may set the temperature too high. This may scorch the first items and can also damage the mechanical and electrical systems of the finisher. 2. The feeder speed is too fast. Slow down the feed speed.
There is color or staining on the finished material.	The wash process has not cleaned the fabric. Impurities such as soil, minerals, sour or detergent may still be present in the fabric. Since only the water is removed from the fabric during the finishing process, any impurities will remain as a deposit on the linen or finisher surfaces.
The fabric is scorched.	The roll or shoe temperature is too high. Reduce the temperature. **NOTE: The entire width of the finisher should be used to prevent overheating the unused surface. Small articles should be processed in a pattern that utilizes the entire width.**

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